NITED STATES DEPARTMENT OF COMMERCE United States Patent and Trademark Offi-Address: COMMISSIONER FOR PATENTS

4693

P O Box 1450 Alexandria, Virgima 22313-1450 www.uspto.gov

2802

DATE MAILED: 04/18/2008

0756-7259

NOTICE OF ALLOWANCE AND FEE(S) DUE

EXAMINER 31780 7590 04/18/2008 LUU, CHUONG A ERIC ROBINSON PMR 955 PAPER NUMBER ARTHNIT 21010 SOUTHBANK ST.

APPLICATION NO. FILING DATE FIRST NAMED INVENTOR ATTORNEY DOCKET NO. CONFIRMATION NO Koichiro Tanaka

TITLE OF INVENTION; LASER IRRADIATION METHOD, LASER IRRADIATION APPARATUS, AND METHOD FOR MANUFACTURING SEMICONDUCTOR DEVICE

APPLN. TYPE	SMALL ENTITY	ISSUE FEE DUE	PUBLICATION FEE DUE	PREV. PAID ISSUE FEE	TOTAL FEE(S) DUE	DATE DUE
nonprovisional	NO	\$1440	\$0	\$0	\$1440	07/18/2008

THE APPLICATION IDENTIFIED ABOVE HAS BEEN EXAMINED AND IS ALLOWED FOR ISSUANCE AS A PATENT. <u>PROSECUTION ON THE MERITS IS CLOSED.</u> THIS NOTICE OF ALLOWANCE IS NOT A GRANT OF PATENT RIGHTS. THIS APPLICATION IS SUBJECT TO WITHDRAWAL FROM ISSUE AT THE INITIATIVE OF THE OFFICE OR UPON PETITION BY THE APPLICANT. SEE 37 CFR 1.313 AND MPEP 1308.

THE ISSUE FEE AND PUBLICATION FEE (IF REQUIRED) MUST BE PAID WITHIN THREE MONTHS FROM THE MAILING DATE OF THIS NOTICE OR THIS APPLICATION SHALL BE REGARDED AS ABANDONED. THIS STATUTORY PERIOD CANNOT BE EXTENDED. SEE 35 U.S.C. 151. THE ISSUE FEE DUE INDICATED ABOVE DOES NOT REFLECT A CREDIT FOR ANY PREVIOUSLY PAID ISSUE FEE IN THIS APPLICATION. IF AN ISSUE FEE HAS PREVIOUSLY BEEN PAID IN THIS APPLICATION (AS SHOWN ABOVE), THE RETURN OF PART B OF THIS FORM WILL BE CONSIDERED A REQUEST TO REAPPLY THE PREVIOUSLY PAID ISSUE FEE TOWARD THE ISSUE FEE NOW DUE.

HOW TO REPLY TO THIS NOTICE:

POTOMAC FALLS, VA 20165

10/787.120

I. Review the SMALL ENTITY status shown above.

If the SMALL ENTITY is shown as YES, verify your current SMALL ENTITY status:

A. If the status is the same, pay the TOTAL FEE(S) DUE shown

02/27/2004

B. If the status above is to be removed, check box 5b on Part B -Fee(s) Transmittal and pay the PUBLICATION FEE (if required) and twice the amount of the ISSUE FEE shown above, or

If the SMALL ENTITY is shown as NO:

A. Pay TOTAL FEE(S) DUE shown above, or

B. If applicant claimed SMALL ENTITY status before, or is now claiming SMALL ENTITY status, check box 5a on Part B - Fee(s) Transmittal and pay the PUBLICATION FEE (if required) and 1/2 the ISSUE FEE shown above.

II. PART B - FEE(S) TRANSMITTAL, or its equivalent, must be completed and returned to the United States Patent and Trademark Office (USPTO) with your ISSUE FEE and PUBLICATION FEE (if required). If you are charging the fee(s) to your deposit account, section "4b" of Part B - Fee(s) Transmittal should be completed and an extra copy of the form should be submitted. If an equivalent of Part B is filed, a request to reapply a previously paid issue fee must be clearly made, and delays in processing may occur due to the difficulty in recognizing the paper as an equivalent of Part B.

III. All communications regarding this application must give the application number. Please direct all communications prior to issuance to Mail Stop ISSUE FEE unless advised to the contrary.

IMPORTANT REMINDER: Utility patents issuing on applications filed on or after Dec. 12, 1980 may require payment of maintenance fees. It is patentee's responsibility to ensure timely payment of maintenance fees when due.

PART B - FEE(S) TRANSMITTAL

Complete and send this form, together with applicable fee(s), to: Mail Commissioner for Patents P.O. Box 1450 Alexandria, Virginia 22313-1450

or Fax (571)-273-2885

INSTRUCTIONS: This form should be used for transmitting the ISSUE FEE and PUBLICATION FEE (if required). Blocks 1 through 5 should be completed where

appropriate. All further indicated unless corrects maintenance fee notifica	correspondence includir ed below or directed oth	of transmitting the 1330 ng the Patent, advance of nerwise in Block 1, by (a	rders and notification of n a) specifying a new corres	naintenance fees wi pondence address;	ill be and/or	mailed to the current (b) indicating a sepa	correspondence address as arate "FEE ADDRESS" for
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ERIC ROBINS PMB 955 21010 SOUTHE POTOMAC FAI	BANK ST.	V2008	I bo	Cert	ificate	of Mailing or Trans	mission g deposited with the United st class mail in an envelope above, or being facsimile ate indicated below.
FOTOMAC FAI	LL3, VA 20103						(Depositor's name)
			_				(Signature)
							(Date)
APPLICATION NO.	FILING DATE		FIRST NAMED INVENTOR		ATTO	RNEY DOCKET NO.	CONFIRMATION NO.
10/787,120 TITLE OF INVENTIO SEMICONDUCTOR DE		TION METHOD, LASE	Koichiro Tanaka R IRRADIATION APPA	RATUS, AND M	ЕТНС	0756-7259 D FOR MANUFAC	4693 CTURING
APPLN. TYPE	SMALL ENTITY	ISSUE FEE DUE	PUBLICATION FEE DUE	PREV. PAID ISSUE	FEE	TOTAL FEE(S) DUE	DATE DUE
nonprovisional	NO	\$1440	\$0	\$0		\$1440	07/18/2008
EXAM	IINER	ART UNIT	CLASS-SUBCLASS				
LUU, CH	UONG A	2892	438-487000				
"Fee Address" ind PTO/SB/47; Rev 03-0 Number is required. 3. ASSIGNEE NAME A	ondence address (or Cha 3/122) attached. ication (or "Fee Address 12 or more recent) attach ND RESIDENCE DAT/ less an assignee is ident h in 37 CFR 3.II. Comp	inge of Correspondence "Indication form and Use of a Customer A TO BE PRINTED ON	2. For printing on the p (1) the asmes of up to or agents OR, alternativ (2) the name of a single prejettered attorney or a 2 registered patent attor listed, no name will be THE PATENT (print or typ data will appear on the pu T a substitute for filing an (B) RESIDENCE: (CITY	3 registered patent rely, e firm (having as a agent) and the name meys or agents. If n printed. ec) stent. If an assigne assignment.	memb s of u so nam	er a 2	ocument has been filed for
Please check the appropr	iate assignee category or	categories (will not be pr	inted on the patent):	Individual 🗖 Cor	rporati	on or other private gro	oup entity Government
4a. The following fee(s) Issue Fee Publication Fee (N	vo small entity discount p		o. Payment of Fee(s): (Plea A check is enclosed. Payment by credit can The Director is hereby overpayment, to Depo	d. Form PTO-2038	is atta	ched.	shown above) ficiency, or credit any n extra copy of this form).
- 11	s SMALL ENTITY state	as. See 37 CFR 1.27.	☐ b. Applicant is no long				
NOTE: The Issue Fee an interest as shown by the	d Publication Fee (if req records of the United Sta	uired) will not be accepte ites Patent and Trademark	d from anyone other than to Office.	he applicant; a regis	tered :	ittorney or agent; or th	ne assignee or other party in
Authorized Signature				Date			
Typed or printed nam	e			Registration No	D		
This collection of inform an application. Confiden submitting the complete this form and/or suggests Box 1450, Alexandria, V Alexandria, Virginia 223	nation is required by 37 C tiality is governed by 35 d application form to the ions for reducing this but 'irginia 22313-1450. DC k13-1450.	CFR 1.311. The informatis U.S.C. 122 and 37 CFR USPTO. Time will vary rden, should be sent to the ONOT SEND FEES OR	on is required to obtain or r 1.14. This collection is est depending upon the indiv e Chief Information Office COMPLETED FORMS TO	etain a benefit by th imated to take 12 n idual case. Any cor r, U.S. Patent and 1 of THIS ADDRESS.	ne publ ninutes nment Fraden SENI	ic which is to file (and to complete, includir s on the amount of tin ark Office, U.S. Dep O TO: Commissioner	d by the USPTO to process) ng gathering, preparing, and me you require to complete artment of Commerce, P.O. for Patents, P.O. Box 1450,

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PTOL-85 (Rev. 08/07) Approved for use through 08/31/2010.



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE United States Patent and Trademark Office Address: COMMISSIONER FOR PATENTS

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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.	
10/787,120	02/27/2004	Koichiro Tanaka	0756-7259	4693	
31780	7590 04/18/2008		EXAM	UNER	
ERIC ROBINSON			LUU, CHUONG A		
PMB 955			ART UNIT	PAPER NUMBER	
21010 SOUTHBANK ST. POTOMAC FALLS, VA 20165			2892 DATE MAII ED: 04/18/200	8	

Determination of Patent Term Adjustment under 35 U.S.C. 154 (b)

(application filed on or after May 29, 2000)

The Patent Term Adjustment to date is 0 day(s). If the issue fee is paid on the date that is three months after the mailing date of this notice and the patent issues on the Tuesday before the date that is 28 weeks (six and a half months) after the mailing date of this notice, the Patent Term Adjustment will be 0 day(s).

If a Continued Prosecution Application (CPA) was filed in the above-identified application, the filing date that determines Patent Term Adjustment is the filing date of the most recent CPA.

Applicant will be able to obtain more detailed information by accessing the Patent Application Information Retrieval (PAIR) WEB site (http://pair.uspto.gov).

Any questions regarding the Patent Term Extension or Adjustment determination should be directed to the Office of Patent Legal Administration at (571)-272-7702. Questions relating to issue and publication fee payments should be directed to the Customer Service Center of the Office of Patent Publication at 1-(888)-786-0101 or (571)-272-4200.

Notice of Allowability

Application No.	Applicant(s)
10/787,120	TANAKA ET AL.
Examiner	Art Unit
Chuong A Luu	2892

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS. This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

- This communication is responsive to 2/4/2008.
- The allowed claim(s) is/are 7,8,10-13 and 15-24.
- 3. Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - b) ☐ Some* c) ☐ None of the: a) \square All
 - 1. T Certified copies of the priority documents have been received.
 - 2. X Certified copies of the priority documents have been received in Application No. 10/678,083.
 - 3. Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).
 - * Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application. THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

- A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
- CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) Including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) hereto or 2) to Paper No./Mail Date
 - (b) including changes required by the attached Examiner's Amendment / Comment or in the Office action of

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).

6.

DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

- 1. | Notice of References Cited (PTO-892)
- 2. Notice of Draftperson's Patent Drawing Review (PTO-948)
- Information Disclosure Statements (PTO/SB/08). Paper No./Mail Date
- 4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
- 5. Notice of Informal Patent Application
- Interview Summary (PTO-413), Paper No./Mail Date
- 7. T Examiner's Amendment/Comment
- 8. X Examiner's Statement of Reasons for Allowance
- Other .

Application/Control Number: 10/787,120

Art Unit: 2892

DETAILED ACTION

Allowable Subject Matter

Claims 7-8, 10-13 and 15-24 are allowed.

The following is an examiner's statement of reasons for allowance: The following is an examiner's statement of reasons for allowance: The examiner has reviewed the prior art in light of applicant's claimed invention and finds that the combined claims define over the prior art. The cited prior art does not disclose or suggest a semiconductor device inter alia the limitations ".irradiating the surface with the elongated beam whereto an irradiation area of the elongated beam has at least a first portion and a second portion, said first portion having a lower energy density than the second portion; irradiating the surface with a second laser beam concurrently with the elongated beam, said second laser beam having a fundamental wave emitted from a solid laser, in such a manner that an irradiation area of the second laser beam overlaps at least the first portion of the irradiation area of the elongated beam while moving the surface relatively to the elongated beam and the second laser beam in a first direction.."

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Application/Control Number: 10/787,120

Art Unit: 2892

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Chuong A. Luu whose telephone number is (571) 272-1902. The examiner can normally be reached on M-F (6:30-3:00).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thao X. Le can be reached on (571) 272-1708. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Chuong A Luu/ Primary Examiner, Art Unit 2892 April 11, 2008